



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/737,276

12/13/2000

Thomas J. Kolze

2875.0900002

7915

26111 7590 07/18/2007  
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.  
1100 NEW YORK AVENUE, N.W.  
WASHINGTON, DC 20005

EXAMINER

DUONG, FRANK

ART UNIT

PAPER NUMBER

2616

MAIL DATE

DELIVERY MODE

07/18/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

09/737,276

Applicant(s)

KOLZE, THOMAS J.

Examiner

Frank Duong

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 32 and 34-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 32 and 34-39 is/are allowed.
- 6) ☒ Claim(s) 40-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This Office Action is a response to communications dated 04/16/07. Claims 32, 34-53 are pending in the application.

#### ***Specification***

2. The amendment filed 04/16/07 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

- a) Newly added specification on pages 3-4 of the amendment filed 04/16/07.
- b) Newly added figures 14-17.

Applicant is required to cancel the new matter in the reply to this Office Action.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 40-53 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no support in the original specification for

Art Unit: 2616

the following claimed limitations in the newly added claims: *"storing at least one first user unique parameter corresponding with a first carrier frequency"*, *"storing at least one second user unique parameter corresponding with a second carrier frequency that is different from the first carrier frequency"*, as recited in claims 40-42; *"wherein the at least one first user unique parameter includes at least one selected from the group consisting of a transmit power level, fine frequency tuning information, timing information, and transmit equalization information"*, as recited in claim 41; *"allocating a wide-band channel for transmission of relatively long packets; allocating a narrow-band channel for transmission of relatively short packets; and transmitting a data packet having a data packet length using either the wide-band"*, as recited in claim 43-50; and *"allocating a first carrier frequency for communication of comparatively short packets using a comparatively low symbol rate; allocating a second carrier frequency that is different from the first carrier frequency for communication of comparatively long packets using a comparatively high symbol rate"*, as recited in claim 51-53.

It is understood the present invention remedies the disadvantage of a cable modem (CM) in a prior art DOCSIS system by modifying the ranging process of the DOCSIS standard to allow a cable modem to initialize/range on multiple channels to improve performance of short bursts in an impulsive noise environment. There are two techniques for doing so as disclosed in the original specification: a first technique entails an alteration to a DOCSIS compliant CM and a second technique involves a modification to the DOCSIS specification. Both of these techniques are disclosed on pages 23-24 of the original specification in reference to a flow diagram of Figure 9,

Art Unit: 2616

blocks 914-920. In accordance with the description of blocks 914-912, there are features that the CM is encoded with vendor specific information for identifying special capabilities to let the headend know that it is capable of being initialized on more than one channels and the CM, during the registration process, sends a message to the headend requesting initializing on more than one channels. The disclosed invention deals only with a process or procedure for allowing the CM to range on multiple channels, not the time slots or resource allocation in a DOCSIS system. Therefore, from the above features, the claimed limitations of *"storing at least one first user unique parameter corresponding with a first carrier frequency"*, *"storing at least one second user unique parameter corresponding with a second carrier frequency that is different from the first carrier frequency"*, as recited in claims 40-42; *"wherein the at least one first user unique parameter includes at least one selected from the group consisting of a transmit power level, fine frequency tuning information, timing information, and transmit equalization information"*, as recited in claim 41; *"allocating a wide-band channel for transmission of relatively long packets; allocating a narrow-band channel for transmission of relatively short packets; and transmitting a data packet having a data packet length using either the wide-band"*, as recited in claim 43-50; and *"allocating a first carrier frequency for communication of comparatively short packets using a comparatively low symbol rate; allocating a second carrier frequency that is different from the first carrier frequency for communication of comparatively long packets using a comparatively high symbol rate"*, as recited in claim 51-53, cannot unambiguously

Art Unit: 2616

derive to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

*(note: Due to the problems discussed above, there is no art applied to determine the allowability of claims 40-53 at this time)*

#### ***Allowable Subject Matter***

4. Claims 32 and 34-39 are allowed.

#### ***Response to Arguments***

5. Applicant's arguments filed 04/16/07 have been fully considered but they are not persuasive.

In the Remarks of the outstanding response, pertaining the rejection of claims 40-53 under 35 U.S.C. § 112, first paragraph, Applicant argues the original specification concisely disclosed the claimed limitation of *"storing at least one first user unique parameter corresponding with a first carrier frequency"*, *"storing at least one second user unique parameter corresponding with a second carrier frequency that is different from the first carrier frequency"*, as recited in claims 40-42; *"wherein the at least one first user unique parameter includes at least one selected from the group consisting of a transmit power level, fine frequency tuning information, timing information, and transmit equalization information"*, as recited in claim 41; *"allocating a wide-band channel for transmission of relatively long packets; allocating a narrow-band channel for*

Art Unit: 2616

*transmission of relatively short packets; and transmitting a data packet having a data packet length using either the wide-band", as recited in claim 43-50; and "allocating a first carrier frequency for communication of comparatively short packets using a comparatively low symbol rate; allocating a second carrier frequency that is different from the first carrier frequency for communication of comparatively long packets using a comparatively high symbol rate", as recited in claim 51-53. To support the argument, Applicant refers to the disclosure of page 13, lines 4-7, 10-13, and 28-31; page 16, line 33 - page 17, line 1; and page 25, lines 33-35 and states "As described in the specification, a conventional cable modem .... A person of ordinary skilled in the art would clearly recognize that different stored sets of user unique parameters correspond with respective different carrier frequency. For example, a first stored set of user unique parameters corresponds with a first carrier frequency and a second stored set of user unique parameters corresponds with a second carrier frequency that is different from the first carrier frequency."*

In response Examiner respectfully disagrees for the following rationales:

First, the original specification does not support the claimed limitations of claims 40-53 as discussed above. In the original specification, on page 13, lines 4-7, 10-13 and 28-31, it is described the parameters listed in DOCSIS to include "channel," "burst profile," and "user unique" parameters. It is also states that CM in DOCSIS does not range or initialize on two or more channels. On page 16, line 33 to page 17, line 1, it is described the CM in the present invention range or initialize on two or more channels, wideband and narrowband channels. On page 25, lines 33-35, it is described that

Art Unit: 2616

headend may grant short data packets to a carrier using a narrow channel, and longer data packets to another carrier using a wideband channel. From the above description, the claimed limitations of *"storing at least one first user unique parameter corresponding with a first carrier frequency"*, *"storing at least one second user unique parameter corresponding with a second carrier frequency that is different from the first carrier frequency"*, as recited in claims 40-42; *"wherein the at least one first user unique parameter includes at least one selected from the group consisting of a transmit power level, fine frequency tuning information, timing information, and transmit equalization information"*, as recited in claim 41; *"allocating a wide-band channel for transmission of relatively long packets; allocating a narrow-band channel for transmission of relatively short packets; and transmitting a data packet having a data packet length using either the wide-band"*, as recited in claim 43-50; and *"allocating a first carrier frequency for communication of comparatively short packets using a comparatively low symbol rate; allocating a second carrier frequency that is different from the first carrier frequency for communication of comparatively long packets using a comparatively high symbol rate"*, as recited in claim 51-53, cannot unambiguously derive to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Second, the MPEP clearly states under 35 U.S.C. 112, first paragraph *"the specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly*



*connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention."* Contradistinction to the Applicant's argument, the original specification, as discussed above, fails to contain a written description of the invention in such full, clear, concise, and exact terms in a manner as recited in claims 40-53 and as discussed above to enable any person skilled in the art to which it pertains.

As for arguments pertaining the newly added specification and drawings of Figs. 14-17 beginning on pages 20-23 of the Remarks not introduce new matter, Examiner's response is that Applicant's attempt to amend the specification by adding new material in the specification and in the drawings of Figures 14-17 has inadvertently introduced new matter that is not fully support by the original specification. A careful review of the original specification, Examiner finds no discussion in the language of claims 40-53 in pages mentioned by the Applicant. Therefore, this argument is not persuasive since it is not commensurate in scope with the recited (or disclosed) claim limitations. Applicant is also reminded that the patent application is not that dynamic. The subject matters deviated from that originally filed cannot be introduced to overcome the outstanding rejection or as applicant desired.

Examiner believes an earnest attempt has been made in addressing all of the Applicant's arguments. Due to the response fails to place the instant application in a favorable condition for allowance, the rejection is maintained.

Perhaps Applicant should cancel new matter in the specification and in the rejected claims in a response to this Office Action to expedite the prosecution and to place the instant application in a favorable condition for allowance.

### ***Conclusion***

**6. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

**7.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Duong whose telephone number is 571-272-3164. The examiner can normally be reached on 7:00AM-3:30PM, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild can be reached on 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**FRANK DUONG  
PRIMARY EXAMINER**

July 12, 2007